

NOV 22 2005

See attached form for additional information.

Interagency Report Control No.:

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

1. CERTIFICATE NUMBER: 21-R-0065
CUSTOMER NUMBER: 393

FORM APPROVED
OMB NO. 0579-0036

ANNUAL REPORT OF RESEARCH FACILITY
(TYPE OR PRINT)

State University Of New York
Suny At Albany
1400 Washington Avenue Msc 320
Albany, NY 12222

Telephone: (518) -442-4819

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, or experimentation, or held for these purposes. Attach additional sheets if necessary)

FACILITY LOCATIONS (Sites) - See Attached Listing

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets if necessary or use APHIS Form 7023A)

| A. Animals Covered By The Animal Welfare Regulations | B. Number of animal being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes. | C. Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs. | D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals an for which appropriate anesthetic, analgesic, or tranquilizing drugs were used. | E. Number of animals upon which teaching, experiments, research, surgery or tests were conducted involving accompanying pain or distress to the animals and for wh the use of appropriate anesthetic, analgesic, or tranquiliz drugs would have adversely affected the procedures, res or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress in these animals and the reaso such drugs were not used must be attached to this report | F. TOTAL NUMBER OF ANIMALS (COLUMNS C + D + E) |
|-------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| 4. Dogs | | | | | |
| 5. Cats | | | | | |
| 6. Guinea Pigs | | | | | |
| 7. Hamsters | | 99 | | 109 (See attached) | 208 |
| 8. Rabbits | | | | | |
| 9. Non-human Primates | | | | | |
| 10. Sheep | | | | | |
| 11. Pigs | | | | | |
| 12. Other Farm Animals | | | | | |
| 13. Other Animals | | | | | |
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ASSURANCE STATEMENTS

- 1) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, testing, surgery, or experimentation were followed by this research facility.
- 2) Each principal investigator has considered alternatives to painful procedures.
- 3) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and an Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC-approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4) The attending veterinarian for this research facility has appropriate authority to ensure the provision of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL
(Chief Executive Officer or Legally Responsible Institutional Official)

SIGNATURE OF CEO OR INSTITUTIONAL OFFICIAL

(b)(6), (b)(7)c

DATE SIGNED

11/14/05

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NOV 23 2005

UNIVERSITY AT ALBANY
STATE UNIVERSITY OF NEW YORK

(b)(6),(b)(7)c

(b)(2)High,(b)(7)f

Albany, NY 12222

(b)(6),(b)(7)c

TO: (b)(6), (b)(7)c
FROM:
DATE: October 6, 2005
SUBJECT: Annual USDA Report of Research Facility

Two hundred and eight hamsters are classified by Category A as animals covered by the Animal Welfare Act.

Ninety-nine hamsters are classified as Category C. These animals did not experience pain, distress, or administration of anesthetic, analgesic, or tranquilizers.

No hamsters are classified by Category D.

One hundred nine hamsters have been utilized in research category E - that for which "appropriate" use of analgesics would have been contraindicated. All 109 of these animals were surgicized, ovariectomized and/or had stereotaxic implantation of guide cannula. Aenesthesia (sodium pentobarbital 75 mg/kg or to effect) was used for these procedures; however, post-operative analgesics were not administered because it would have interfered with the scientific objectives of our research, which is described below.

The mechanisms of action and behavioral effects of neurosteroids are the focus of research in my laboratory. Neurosteroids are unique from other steroids in that they are produced *de novo* from cholesterol by glial cells in the brain and that they have their actions GABA_A receptor complexes (Purdy, Moore, Morrow, and Paul, 1992) and NMDA receptors rather than through actions at intracellular receptors, as do other steroids (reviewed in Baulieu, 1998). Research from our laboratory has revealed that neurosteroids' actions at the aforementioned substrates mediate their effects on social, cognitive, and affective behavior.

The secretion of neurosteroids (neurosteroidogenesis) and substrates through which neurosteroids are known to have their actions are influenced by many factors. Environmental factors, such as exposure to stressors produce analgesia, alter neurosteroidogenesis, neurosteroids' actions at their substrates (GABA_A receptor complexes and NMDA receptors) (Kellogg, Sullivan, Bitran, and Ison, 1991; Purdy, Morrow, Moore, and Paul, 1991; Purdy and Paul, 1992; Schmid, Sala, Bonnanno, and Raiteri, 1998), as well as proximate (Morgan, Thayer, and Frye, 1999) and later behavioral responses (Frye and Bayon, 1999; Kehoe, Mallinson, McCormick, and Frye, 2000; Morgan, Thayer, and Frye, 1999). In addition to environmental stressors, administration of analgesics (such as benzodiazepines) and products which are commonly used in vehicles for analgesics (e.g. alcohol) produce analgesia (Ator, Grant, Purdy, Paul, and Griffiths, 1993; Bienkowski and Kostowski, 1997), alter neurosteroidogenesis (Wilson and Frye, 1999), neurosteroids' actions at their substrates (Costa, Olivera, Meyer, Ferreira, Soto, Frausto, Savage, Browning, and Valenzuela, 2000; Kellogg, Olson, and Pleger, 1998; Mehta and Ticku, 1998), as well as baseline, neurosteroid- and analgesia-induced behavioral responses (Kellogg, Taylor, Rodriguez-Zafra, and Pleger, 1993; Zimmerberg, Drucker, and Weider, 1995). The literature clearly substantiates the notion that administering an analgesic would significantly alter the

post-surgical experience by altering neurosteroid secretion, neurosteroid substrates, and the subsequent later behavioral effects produced by neurosteroids. Hence, such manipulations are contraindicated for our research program.

Do not hesitate to contact me if you have any questions or if more information is required.

References

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Site: 002

Status: only active site

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